IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Norfolk Division

ACTIVEVIDEO NETWORKS, INC. Plaintiff/Counterclaim-Defendant, v. VERIZON COMMUNICATIONS INC., VERIZON SERVICES CORP., VERIZON VIRGINIA INC. AND VERIZON SOUTH INC., Defendants/Counterclaim-Plaintiffs.	**ACTIVEVIDEO'S OPENING CLAIM CONSTRUCTION BRIEF** Civil Action No. 2:10-cv-248 RAJ/FBS

Pursuant to the Agreed Order for Expedited *Markman* Hearing (Docket # 90), ActiveVideo

Networks, Inc. ("ActiveVideo") submits its Opening Claim Construction Brief.

I.   BACKGROUND

A.   ActiveVideo's Patents-in-Suit

ActiveVideo is a pioneer of interactive television systems with a long history of

innovation in developing ground-breaking technology for the cable industry. Founded in 1988,

ActiveVideo's vision was to create an interactive home television information system that would

revolutionize the cable television industry by making user-friendly interactive services widely

available for the first time. ActiveVideo designed a novel approach to interactive cable

television, moving much of the expensive electrical components from the set-top box in the

user's home to the cable system's "headend," where it could be shared by several users.

ActiveVideo's innovative solution made possible the interactive television that is now widely

deployed by ActiveVideo's partners, such as Cablevision, and by infringers, such as Verizon.

At the time of the invention of ActiveVideo's patents, the cable industry had tried, but

failed, to develop commercially viable interactive television services. There were two major

technological obstacles. First, traditional approaches delivered interactive services via dedicated

channels on a one-to-one basis to subscribers. This resulted in bandwidth limitations, restricting

the number of simultaneous subscribers that could be served and making scaling to a wider

subscriber base impossible. Second, traditional approaches required sophisticated set-top boxes

in each user's home to enable the interactive services, making implementation costs prohibitive.

ActiveVideo invented a novel system that overcame both these major hurdles by placing

most of the expensive hardware at a headend so that it could be shared by multiple subscribers.

This innovative new design assigned the required processing power to subscribers on a demand

basis, solving the bandwidth problem and allowing each subscriber to remotely access the

sophisticated equipment needed for complex interactive services through existing set top boxes.

ActiveVideo patented this system in the early 1990s. As described in the patents, the

ActiveVideo system could provide an array of interactive services, including Video-on-Demand

("VOD"), interactive home shopping, interactive advertising, and interactive media guides for

subscribers years before the Internet became ubiquitous. *See, e.g.*, Declaration of Stephen E.

Noona in Support of ActiveVideo's Opening Claim Construction Brief ("Noona") Ex. 1,

678.5:55-58, Fig. 6, 18:49-19:45, Figs. 33-41.[1]

Fig. 7 depicts a system that includes home interface controllers ("HICs"), such as set-top

boxes, in subscribers' homes 76a, 76b, 76c. *See id.* at 7:65-8:48. Using a remote control or other

selection device associated with the HIC, a subscriber can browse and select interactive services.

See id. at 5:50-52, 18:49-19:45. Selection commands from the remote control are received by the

HIC and sent upstream to equipment in a node of the cable distribution system. *See id.* at 7:24-28,

11:55-12:28. The node 73, which may be located in the headend 11 of the system, includes what

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[1] Citations to specific sections of a patent will be in the form of "AAA.BB:cc-dd," where AAA is
the abbreviated patent number, BB is the column within the patent, and cc-dd are the specific
line numbers within those columns. For example, 678.2:3-4 refers to the 678 Patent, at column
2, lines 3-4.

the inventors called a network manager 66a and modular multimedia controllers ("MMCs") 67, which provide the processing power for the interactive services requested by the subscriber. *Id.*

In the embodiment shown in Fig. 7, the network manager 66a receives a subscriber's request from an HIC for an interactive service, and establishes an interactive session. The network manager assigns an MMC 67 on demand to the requesting HIC to provide the interactive television services to the subscriber on an assigned "television information signal" that may be a separately allocated carrier frequency or may be a "digital data stream" with "addressed packets." *See id.*, 9:56-61. The HIC may communicate with the assigned MMC during the interactive session (*e.g.,* during the viewing of a VOD movie) and, once the session terminates, the MMC can continue to deliver interactive services to other subscribers. *See id.*, 5:17-22, 7:24-28, 12:16-28. This revolutionary approach – as exemplified in this and other embodiments described and claimed in the patents – finally made delivering interactive television services a reality.

B.   Verizon's FiOS TV Provides Interactive Serivces, such as Video-On-Demand, using ActiveVideo's Patented Technology

ActiveVideo has accused interactive television services, such as VOD, offered by Verizon as part of its FiOS TV system of infringing the ActiveVideo patents. Verizon's FiOS system uses interactive sessions and on-demand assignment of television information signals to provide, for example, VOD movies, TV shows and advertisements to FiOS subscribers. In a desperate bid to avoid the consequences of its blatant infringement, Verizon has sought to bury the court in a blizzard of disputes, most of which seek to impermissibly read details of tactically chosen embodiments from the patents into the claims.

C.   Verizon's Retaliatory Patent Claims

In response to ActiveVideo's suit, Verizon has asserted counterclaim patents based

primarily on its failed efforts to provide "Video Dial Tone" services to its customers in the 1990's. These Verizon patents came *after* ActiveVideo had developed and deployed its systems. Thus, even if these patents could be stretched to cover ActiveVideo's system, as Verizon tries to do with its aggressive construction, this would only prove that the Verizon patents are invalid as anticipated by ActiveVideo's earlier work.

II.   LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

In construing a claim term, the Court must first look to the specific words of the claim. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). "[T]he context in which a term is used in the asserted claim can be highly instructive" and, thus, the "claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. The Court must also interpret the claims in view of the specification which "is the single best guide to the meaning of a disputed term." *Id.* Nonetheless, the Federal Circuit has repeatedly warned that claims should not be limited to the embodiments disclosed in the specification. *See Phillips*, 415 F.3d at 1323; *Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998); *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) (describing "one of the cardinal sins of patent law - reading a limitation from the written description into the claims."). At the other extreme, a claim construction that would exclude a preferred embodiment is rarely, if ever, correct. *Vitronics*, 90 F.3d at 1583-4.

III.   ACTIVEVIDEO'S PATENTS

A.   The 678 Patent[2]

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[2] The written descriptions of the 678, 578, 883, and 034 Patents, which are all in the same family, are essentially, and for all substantive claim construction purposes, identical. As such, ActiveVideo provides citations to only one specification unless the context requires otherwise. Moreover, because the analysis is the same for each patent, the parties agree that all of the disputed terms should be construed the same in each asserted claim. ActiveVideo will address (cont'd)

ActiveVideo has asserted only one independent claim, Claim 1, from the 678 Patent.

This claim is directed to a method for interactive delivery of information services, such as VOD,

to subscribers' televisions. The method includes a request from a home interface controller for

an "interactive session" with equipment in a node of the distribution network. The "interactive

session" is established by assigning a television information signal and informing the home

interface controller of the assignment. In connection with this session, the home interface

controller requests an information service, such as VOD movie, which is then put onto the

assigned television information signal. This is precisely how Verizon's VOD system works.

In an attempt to avoid having straightforward limitations of Claim 1 read onto the session

set-up and content delivery steps performed by its VOD system, Verizon contends that virtually

every term and phrase from this claim must be construed.

1. "node" (678.Claim 1; 034.Claim 1; 883.Claims 1, 13, 39)[3]

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
equipment in a cable distribution network that communicates with at least one home interface controller	equipment that logically lies between and communicates with a cable headend and a small number of home interface controllers, that is physically connected and in close proximity to each subscriber through one or more feeders, and that contains a substantially identical copy of the data stored at a regional processing center

The "node" is simply equipment positioned at a point in the distribution network that

communicates with a subscriber's home interface controller.[4] This is made clear by the language

of Claim 1 of the 678 Patent ("receiving at a *node . . .* a request"), and the other asserted claims.

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each disputed term only once herein even if the term appears in other asserted patents.
[3] ActiveVideo's constructions are further supported and explained by the expert testimony of David J. Large. *See generally* Declaration of David J. Large in Support of ActiveVideo's Opening Claim Construction Brief, filed concurrently herewith.
[4] The specification refers to a set-top unit as an exemplary embodiment of a home interface controller. 678 Patent at 5:46-49; s*ee also, e.g.,* 76a or 76b in Fig. 7 of the 678 Patent.

See also 883 Patent, Claim 1 ("detecting at a *node* on the information service distribution network a request, from a home interface controller…").[5]   This is consistent with the teaching of the specification. *See, e.g.*, 678 Patent at Fig. 1 (showing "nodes" in communication with set-top units) and 5:47-50.

In contrast, as evident from its length and convoluted language, Verizon's proposed definition is unjustifiably narrow, and is based on little more than Verizon's interest in creating a non-infringement defense. *First*, there is nothing in the claim language or the specification requiring that the node must lie "between" the headend and the home interface controllers. In some disclosed embodiments the node is undisputedly located *at the headend*. *See, e.g.*, Fig. 7 and 7:65-8:55. Verizon's proposed definition must be rejected as improperly excluding the Figure 7 embodiment.[6]   *Second*, nothing requires that the node must serve only a "small" number of home interface controllers. *Third*, nothing requires that the node must be "physically connected and in close proximity to each subscriber through one or more feeders." "[S]ubscribers" are people, not equipment, so it makes no sense to say that nodes are "physically connected" to subscribers. In addition, defining the node to be in "close proximity" to subscribers conflicts with the specification's clear teaching, discussed above, that the node could be located at a *headend*.

Finally, there is nothing – in either the claim language or the specification – that requires the node to "contain[] a substantially identical copy of the data stored at a regional processing center." As an initial matter, it is unclear as to what Verizon believes constitutes "the data," as

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[5] Unless indicated otherwise, all emphasis in this brief has been added.
[6] Additionally, Verizon's definition cannot be reconciled with the other claims in the patents-in-suit that expressly require the node to be located at a headend. *See, e.g.,* Claims 4, 18, 25, and 34 of the 034 Patent; Claims 8 and 17 of the 883 Patent.

this is not a term that appears elsewhere in the claim or that Verizon has defined. Even assuming

this means stored content, such as VOD movies, there is no embodiment in the 678 Patent in

which an identical copy of such content is said to be stored at the node. *See, e.g.*, Noona Ex 1,

678.7:66-8:3. This and Verizon's other attempts to confine claims to specific embodiments must

be rejected.

2.   "data communication link"

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
path for data communication	bandwidth, separate from that used for broadcast and interactive channels/frequencies, between the node and a home interface controller for two-way data communication

ActiveVideo's proposed definition properly explains what is meant by "data

communication link" – simply, a path for data communication. This is consistent with the

teachings of the specification. *See, e.g.*, Noona Ex 1, 678.3:31-32 ("The data communications

link [m]ay include a return path . . . ."), Fig. 15 (showing structure of data communications link,

which provides a path for data communications), 11:55-12:15.

In its construction, Verizon equates a *communication link* with *bandwidth*. This conflicts

with the patent that describes and depicts the "data communication link" as a data path and not

"bandwidth." *See* Fig. 15 and Noona Ex 1, 678.11:55-57 ("FIG. 15 illustrates the structure of the

data communications link at the headend (node) of the system of FIG. 7 with subscriber home

interface controllers downstream.")

Verizon next attempts to confine the "data communications link" to "separate"

"channels/frequencies." Nothing in the claim language dictates that the "data communications

link" must occupy its own, unshared channels or frequencies. Indeed, according to the

specification, this is not the case because certain television signals, for example, multiple MPEG

streams sent as addressed data packets, may utilize the same frequency for delivery. *See* Noona

Ex 1, 678.9:56-60 ("Instead of putting each television information signal on a separate carrier at a separate frequency…the signal could be provided as a compressed digital data stream on a time-shared basis or as addressed packets.") Verizon is improperly trying to limit the claims to only those embodiments that use frequency allocation and to exclude those embodiments that – like Verizon's infringing system – use a "compressed digital data stream" with "addressed packets."

Finally, Verizon's definition improperly confines the "data communication link" to communication with the node. While this may be the case with Claim 1 of the 678 Patent, it is not necessarily the case in the context of other claims. In asserted Claim 8 of the 578 Patent, for example, a "node" is not a recited element. Therefore, a definition of "data communication link" that requires a "node" should be rejected.

3. "interactive session" (678.Claim 1; 883.Claims 1, 13)[7]

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
two-way communication session between devices in a network that is established at a certain time and torn down at a later time	two-way communication over a channel/frequency assigned on a demand basis to an individual user

The parties do not dispute that an "interactive session" includes two-way communication for the delivery of an information service, such as VOD. Through its proposed definition, ActiveVideo properly elaborates what is meant by a "session"—namely, that communication between devices in a network is established at a certain time and torn down at a later time.[8] *See, e.g.*, Noona Ex 1, 678.3:7-22, 7:24-25, 12:1-28 (discussing allocation of resource on a demand

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[7] This identical dispute is presented in connection with the phrase "request for an interactive session."

[8] This corresponds to the standard dictionary definition. *See*, Noona Ex 18, IBM Dictionary of Computing (Session: "In network architecture, for the purpose of data communication between functional units, all the activities which take place during the establishment, maintenance, and release of the connection").

basis for delivering interactive services). The establishment of an interactive session may include selecting the set-up parameters that will govern the sessions, such as assignment of a frequency or in the case of a digital data stream, specifying packet addresses and other details of the session. Because a session is both established and torn down, the system resources devoted to a session may be later re-assigned, as is critical to the invention.

ActiveVideo's explanation of what constitutes a "session" is also important because not every back-and-forth exchange between equipment in a network would be understood by one in the art to be a "session." Rather, a session must be initiated and later terminated, and in this context, the two-way communication is part of an "interactive session."

As with the definition of "data communication link," Verizon has again attempted to improperly limit this term to the "channel/frequency" allocation embodiment. For the same reasons stated above, this is improper.

4.   "television information signal" and "information signal" (678.Claim 1; 578.Claim 8; 883.Claims 1, 13, 24, 39; 582.Claim 1; 034.Claim 1)

Term	ActiveVideo's Proposed Construction	Verizon's Proposed Construction
"television information signal"	a signal that may be utilized by a television, directly or via a home interface controller, such as a set-top box, for video display, regardless of the form, including a standard NTSC-modulated rf carrier, an MPEG-compressed digital data stream, or any other format	A signal that may be utilized by a television for video display, regardless of the form, including a standard NTSC-modulated rf carrier, an MPEG-compressed digital data stream, or any other format.
"information signal"	Same as "television information signal"	A signal that may be utilized by a television, directly or via a home interface controller, such as a set-top box, for video display, regardless of the form, including a standard NTSC-modulated if carrier, an MPEG-compressed digital data stream, or any other format.

To quote verbatim from the specification, "[a] 'television information signal' is any

signal that may be utilized by a television for video display, regardless of the form, including a standard NTSC-modulated rf carrier, an MPEG-compressed digital data stream, or any other format." Noona Ex 1, 678.5:33-37. Verizon contends that this definition excludes any signal that cannot be sent directly to a television without using any home interface controller, such as a set-top box. Verizon's construction misconstrues the patent and excludes all exemplary embodiments. To address this distortion, ActiveVideo's construction clarifies that a "television information signal" may be sent "directly or via a home interface controller, such as a set-top box."

Moreover, ActiveVideo's construction is required by other language in the claims. In Claim 1 of the 678 Patent, a "television information signal" is assigned *to the requesting home interface controller associated with a subscriber television* to satisfy the request. Additionally, in Claim 1 of the 034 Patent, the input selection means of the home interface controller, which has an output in communication with an associated subscriber television, is caused to select a given "television information signal" present at the input. Therefore, in these and other claims, the "television information signal" is utilized for video display via a home interface controller, *not directly by the television*.

The specification confirms that a "television information signal" would typically be provided to a home interface controller which in turn may process the signals for display on a television. *See* 678.Abstract ("The home interface controllers receive the television information signals . . . ."), 8:65-9:3 (a "television information signal" may be provided "over the distribution system to homes where a conventional set top in block 81a can permit the signal to be demodulated for display by the television"). Indeed, Fig. 7 shows a cable line providing television information signals to home interface controllers, not to a television directly.

Accordingly, Verizon's misinterpretation of a "television information signal" as limited

to signals that can only be utilized *directly* by a television without a set-top box should be

rejected. Indeed, Verizon's overly restrictive construction is puzzling given that Verizon

concedes that the closely-related term "information signal" need not be provided directly to the

television, but may be processed first by a set-top box.[9]

> **5.   "assigning one of a plurality of television information signals carried
> by the cable distribution network to the requesting home interface
> controller to satisfy the request"**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
assigning a Television Information Signal to a home interface controller	in response to a request for an interactive session from a home interface controller, dedicating to the home interface controller a channel/ frequency for carrying a television information signal to provide the interactive session

As with the definition of "interactive session," Verizon has again attempted to improperly

limit this term to the "channel/frequency" allocation embodiment. For the same reasons stated

above, this is improper.

Verizon further limits the term "assigning" to mean "dedicating." "Dedicating" implies

that the television information signal is *permanently* assigned to the requesting home interface

controller and cannot be assigned to any other home interface controller. This is the antithesis of

the claimed system, which allocates resources on a demand—as opposed to a dedicated—basis.

See Noona Ex 12, 678 Patent Prosecution History, July 1, 1999 Response to Office Action

(distinguishing method of Claim 1 from "Lovett" reference because the latter "teaches away

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[9] In the patents, the term "information signal" is used interchangeably with "television
information signal" to refer to the signal assigned for providing the Information Service, such a
VOD. For example, in Claim 1 of the 678 Patent, a "television information signal" is assigned to
satisfy the request for the Interactive Session. In Claim 1 of the 883 Patent, an "information
signal" is provided that is responsive to the Interactive Session.

from assigning a channel by having a dedicated channel for each subscriber”).

6.   **“informing the requesting home interface controller of the assigned television information signal over the data communication link” (678.Claim 1)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
notifying the home interface controller of the assigned Television Information Signal over the Data Communication Link	after a channel/ frequency carrying a television information signal is assigned to a home interface controller for an interactive session, notifying the home interface controller of the assigned channel/frequency over the data communication link

The parties' dispute again hinges on Verizon's improper attempt to limit this claim to one

type of television information signal (*i.e.*, “channel/frequency”). For the same reasons stated

above, this is improper.

7.   **“putting the information service on the assigned television information signal” (678.Claim 1)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
providing the Information Service on the assigned Television Information Signal	the node providing information services stored at the node to a home interface controller via the television information signal on the channel/ frequency assigned to that home interface controller

The parties are in agreement that this term refers to providing the information service.

ActiveVideo's definition reflects that the interactive service, such as VOD, is provided by

putting, for example, the VOD movie data on the assigned Television Information Signal. When

the Television Information Signal is an “MPEG-Compressed digital data stream,” this would

entail putting the MPEG data into the separate data packets of the Television Information Signal.

Again, Verizon has improperly attempted to confine the meaning of this limitation to a

single embodiment of television information signal – *i.e.*, “channel/frequency.” Furthermore,

Verizon has again improperly tried to limit the claimed invention to one in which the node stores

a copy of the information services. For the same reasons stated above, this is improper.

8. **"assigning one of a plurality of multimedia processing means to control the step of putting and to communicate with the requesting home interface controller" (678.Claim 2)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
assigning a multimedia module for providing the Information Service and for communicating with the home interface controller	dedicating a processor line card to deliver an information service to a single home interface controller, and to communicate with that home interface controller over the data communication link

This term refers to the assignment of a multimedia module, such as an MMC, to provide the VOD movie or other information service to the requesting home interface controller. Verizon's VOD system includes multimedia modules, such content streamers, that likewise stream content to subscribers' set-top boxes. To avoid infringement, Verizon has proposed a construction that is impermissibly narrow in numerous respects.

First, for the same reason stated earlier, it is improper to redefine "assigning" to mean "dedicating." The latter term implies that the assignment is permanent, and undermines the purpose of the invention. Rather, as with the assignment of television information signals, the assignment of multimedia modules that furnish interactive television information service is performed on a demand (*i.e.*, non-permanent) basis. *See, e.g.*, Noona Ex 1, 678.7:24-25 ("Where the information service is interactive, an individual MMC 53 is assigned *on a demand basis* to each requesting home interface controller . . . ."). *Second*, Verizon's definition improperly requires the multimedia module means to be a specific type of equipment—*i.e.*, a processor line card. A processor line card, however, is but one example of equipment, generally referred to as MMCs in the patent, that provides the information service. The claims should not be limited to this embodiment. *Third*, Verizon's definition improperly requires communication to be over the "data communication link." This is plainly not required by the claim language.

B.   The 034 Patent (034 Patent, Claim 7)

1.   **"feeder" (034 Patent, Claim 7)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a communication line of a television distribution network between a node and home interface controller	a cable distribution line that connects a main trunk line or cable to a smaller drop cable at a subscriber's premises

In the context of Claim 7, the "feeder" is the communication line that runs from the node to a home interface controller or a group of home interface controllers. Verizon's definition is impermissibly limiting because it requires a connection to a "main trunk link" and to a "*smaller drop cable.*" Nothing in the intrinsic record supports such a narrow construction.

C.   The 578 Patent

Claim 8, the only asserted independent claim of the 578 Patent, is directed to a system for furnishing information services, such as VOD, interactively over a cable television system. To furnish VOD and other information services, the claimed system uses assignable communication paths for data and television signals between interactive controllers, located at a service provider's headend, and home interface controllers, located in subscribers' homes. This capability to "assign" overcame problems with prior art systems in which channels and/or hardware had to be "dedicated" to subscribers on a one-to-one basis, rather than shared or allocated on demand. *See generally* 578.1:20-2:17 ("Background Art").

1.   **"headend" (582.Claims 1, 5; 578.Claim 8; 883.Claims 1, 13, 24, 39)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a facility within the television distribution network from which Television Information Services or Signals are distributed	a facility that originates and distributes broadcast television signals and potentially other signals

The parties agree that a headend is a common cable industry term that refers to a facility in the network that *distributes* television services or signals. Verizon, however, further loads this standard term with additional unwarranted restrictions.

The *first* extraneous limitation added by Verizon is that the television signals must

originate at the headend. In other words, Verizon contends that the headend cannot receive and then distribute content from anywhere else, such as a super headend. This is contrary to the teachings of the specification which explain that content distributed via a headend may originate at, for example, a regional or national processing center or super headend. *See* 578.Figs. 1 and 2 and 578.5:55-56, 5:65-6:10.[10]

The *second* extraneous limitation improperly added by Verizon is that the headend *must* distribute "broadcast television signals." While the headend *may* distribute broadcast television signals, the headend may also distribute other Television Information Services or Signals. Indeed, Claim 8 states that a "*plurality* of Information Services" are available at a headend for distribution. As explained earlier, Information Services is a defined term that includes a wide range of services capable of being furnished to a television, including VOD. The specification further confirms that a headend may distribute not only broadcast television signals, but also other interactive Information Services. *See, e.g.*, 578.5:48-6:10. It is improper, therefore, to interpret the term headend in the context of these claims as requiring the distribution of any particular signal type, such as "broadcast television signals."

2. **"data transceiver operative over a data communication link"**
   (582.Claim 5; 578.Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
transmitter/receiver for communication over the Data Communication Link	a transceiver in the home interface controller capable of direct communication with the node over the data communication link

The Parties agree that a data transceiver is a component of the home interface controller

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[10] During prosecution of the 034 Patent, the applicants further confirmed that the "headend" may be a distributor of content, rather than an originator. *See* [AVNW BATES RANGE] (Noona Ex 13, 034 Prosecution History, Response to Office Action dated May 13, 1994 at 3) ("All of the claims require the availability of information sources at the headend *but how they get there is generally of no consequence*.").

that communicates over the Data Communication Link. As discussed above, *see supra* Part III.A.2, "Data Communication Link" ("DCL") should be construed to mean simply a "path for data communication."

The Parties dispute what it means for a transceiver to be "operative over" the DCL. ActiveVideo's proposed construction reflects the plain meaning of this term—*i.e.,* "operative over" means the transceiver can "communicate over" the DCL. The patent simply says that "home interface controllers . . . include a data transceiver for data communication," and that the "home interface controller permits subscriber interaction through the data transceiver with an assigned interactive controller." *See, e.g.*, 578.Abstract.

In contrast, in a blatant attempt to avoid infringement, Verizon proposes that "operative over" requires *direct* communication with the *node*. This is far too narrow. *First*, there is *no* node recited in Claim 8. Construing this term to require communication with a "node" will add a limitation plainly not required by the claim language. *Second*, nothing about this term or any other claim language requires (or even suggests) that communication must be *direct*. Verizon's construction appears to require that signals cannot pass through any other intervening devices and equipment that may be present in the network. The specification confirms that communication over the DCL is not always – and may never be – direct. *See* 578, Fig. 7, and 578.6:64-7:13 (preferred embodiment with indirect link traversing splitters (45a, 45b, and 45c), combiners (47), and optical transmitters (42c)). Because this "direct" construction would exclude the preferred embodiment, it must be rejected. *See Vitronics*, 90 F.3d at 1583-4.

3. "interactive controllers" (578.Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
equipment for providing Information Services and for communicating with a home interface controller	a processing unit assigned on a one-to-one basis to a home interface controller for providing two-way information services

Construction of the term "interactive controllers" is unnecessary given that 11 lines of Claim 8 are dedicated to explaining exactly what they are and how they function. *See* 578.22:3-14. With this in mind, ActiveVideo has proposed a definition that succinctly describes this equipment without repeating or rephrasing the other defining claim language.

Verizon's definition, on the other hand, is a distorted summary of other claim language concerning assignable communication. Indeed, by requiring that the interactive controllers themselves be "assigned," Verizon has effectively rewritten the claim. The plain language of Claim 8 requires that the interactive controllers be in "assignable communication," *not that the controllers themselves are assigned*. *See* 578.Claim 8.

Next, Verizon's definition requires that the interactive controllers must be assigned to home interface controllers on a "one-to-one basis." To the contrary, there is nothing in the claim language that excludes a system in which a given interactive controller may be in assignable communication with *multiple* assigned home interface controllers. In fact, the specification describes this arrangement. In particular, the patent specification describes an exemplary "interactive controller" referred to as a "modular media controller 53 (MMCs)," 578.7:23, and then explains that in some contexts, several "subscribers would have a 'party line' to the MMC." *Id.* at 12:25-30. Because it excludes at least this embodiment and is inconsistent with the remainder of the claim, Verizon's proposed definition must be rejected.

4.   "assigned home interface controller" (582.Claims 1, 5; 578.Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a home interface controller to which an interactive controller is assigned	a home interface controller assigned on a one-to-basis [sic] to a processing unit

Here again, Verizon propounds a definition improperly requiring assignment on a "one-to-one basis." For the same reasons just discussed, this must be rejected. ActiveVideo's proposed definition properly reflects the plain meaning of this term as used throughout the

intrinsic record and should be adopted instead.

5.   "assignable television communication" (578.Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
an Information Service provided via a Television Information Signal capable of being assigned to a home interface controller, such as by addressed data packets	communication over a television channel/frequency dedicated to the home interface controller in response to a request for service

Television Communication is a term defined in the patent to mean providing an

Information Service via a Television Information Signal. The qualifier "assignable" simply

means that the Television Information Signal is *capable of* being assigned. *See* Noona Ex 16,

(Webster's Dictionary defining "assignable" as "capable of being assigned"). ActiveVideo's

proposed definition reflects exactly this.

In contrast, Verizon's proposed construction wholly ignores the definition of Television

Communication and seeks to limit its meaning to communication over a "channel/frequency."

This is improper for the same reasons stated earlier, *see supra* Part III.A.2. In addition, Verizon

again seeks to redefine "assignable" to mean "dedicated." This is improper for the same reasons

stated earlier, *see supra* Part III.A.5. Accordingly, Verizon's construction must be rejected.

6.   "assignable data communication" (582.Claim 5; 578.Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
communication of data that is capable of being assigned, such as by addressed data packets	data communication dedicated to the home interface controller in response to a request for service

Here again, the dispute centers on whether "dedicated" should be used to define what is

meant by "assignable." For the same reasons stated earlier, any attempt by Verizon to limit the

meaning of assignable to a permanent, one-to-one communication should be rejected.

D.   The 883 Patent

The asserted claims of the 883 Patent are directed to methods and systems for providing

interactive service on a cable television system.

1. **"detecting at a node . . . a request, from a home interface controller associated with one of the subscriber television sets" (883.Claim 1)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
receiving a request from a home interface controller at a Node	determining, by a device at a node, the existence of a request from a home interface controller

ActiveVideo's proposed construction reflects the plain meaning of this term—*i.e.*, detecting a request simply means the request has not only been sent, but received.

Verizon's proposed definition must be rejected because it interprets "detecting" a request to mean "determining . . . the existence" of a request. It is unclear what Verizon contends must be done at the node beyond receiving the request to "determine" its "existence." In addition, Verizon's proposed definition must be rejected because it improperly adds a limitation, namely, that the request is detected "by a device" in the node. There is no basis in the claim language or the intrinsic record to require the detection to be accomplished "by a device," rather than, for example, software residing at the node, multiple devices, or the like.

2. **"interactive mode" (883.Claims 1, 13, 24, 39; 034.Claim 1)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a mode in which the node or interactive television information system is providing an Information Service to the home interface controller; the home interface controller may, but need not, be furnishing data to the node or interactive television information system as to what Information Service to provide	a mode in which a channel/frequency is assigned on a demand basis to a home interface controller for providing interactive services to the home interface controller

"Interactive mode" is defined in the specification consistently with ActiveVideo's proposed construction. It is settled patent law that "the specification may reveal a special definition given to a claim term by the patentee" and "[i]n such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. According to the specification:

> When a node is said to be in an "interactive mode," it means that the node is providing an Information Service to the home interface controller; the home

interface controller may, but need not, be furnishing data to the node as to what
information service to provide.

Noona Ex 4, 883.5:39-43.[11]   ActiveVideo's proposed definition quotes verbatim the definition

set forth in the specification while Verizon ignores the patent in favor of its own unsupported

construction.

3.   "controlling at a processor in the node . . . an interactive session" (883.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
establishing and/or managing at a processor in the Node an Interactive Session	establishing and managing at a processor in the node an interactive session

Here, the parties' dispute centers on the construction of "controlling at a processor."[12]

ActiveVideo believes that this term is readily understandable without further construction—*i.e.*,

it is the step where one or more processors in the Node "control" an Interactive Session.

Nonetheless, ActiveVideo has submitted a proposed construction to rebut Verizon's contention

that the processor must *both* establish *and* manage the interactive session.

Rather, as reflected in ActiveVideo's proposed definition, the "controlling" step is met by

establishing, for example, by selecting the set-up parameters that will govern the Interactive

Session, or by otherwise managing the Interactive Session. This is consistent with how the

specification describes control of the Interactive Session. *See e.g.*, *id.* 12:5-32.

4.   "providing an information signal capable of full motion video" (883.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
providing an Information Signal capable of carrying full motion video	transmitting a signal containing information in a full-motion video format

ActiveVideo's proposed construction incorporates the defined term Information Signal

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[11] Because they share the same specification, this definition also appears in the 678, 578, and 034
Patents. This term is likewise defined in the 582 Patent at 3:50-54.

[12] The terms Node and Interactive Session have previously been addressed.

(*i.e.*, any signal that may be utilized by a television for video display) and otherwise uses the

self-explanatory language of the claim that requires a signal that is "capable of" full motion

video, if any such video is present. Verizon's proposed definition, on the other hand, requires

"information in a full-motion video format" despite Claim 1 requiring only that the Information

Signal be able to display "an *image* produced by the information signal" that may, but does not

necessarily involve any motion. Such an image, for example, might display television offerings

as shown in the "carousel" image depicted in Fig. 37 of the 883 Patent. Moreover, the claim

language requires only that the Information Signal is "*capable*" of full motion video, not that the

Information Signal is exclusively in a full motion video format as Verizon contends.

5. "operative over a data communication path to the headend" (883.Claim 24)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
capable of communication with the headend over the data communication path	capable of direct communication with the headend over the data communication path

Once again, Verizon seeks to impose a *direct* communication requirement. This is

unsupportable for the same reasons discussed in connection with the term "data transceiver

operative over a data communication link," another term that Verizon contends requires *direct*

communication. *See supra* Part III.C.2 (578 section, 2nd term).

6. "apparent channel" (883.Claim 31)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a channel having an identifier that is apparent to a user	a channel number in the channel listings menu identifying an information service

As ActiveVideo has proposed, an "apparent channel" is simply a channel that is apparent

to the user by some type of identifier (*e.g.*, a channel number or call sign, like ABC or CBS).

This definition is consistent with the exemplary description given in the specification. Figures

33 and 34 "show apparently different channels used for different information services, here TV

listings (channel 31) and classified advertisements (channel 37)." Noona Ex 4, 883.18:51-53.

Verizon's construction is too narrow. *First*, an apparent *channel* is obviously not just a channel *number* as Verizon contends. *Second*, Figures 33 and 34 make it clear that apparent channels are not always in a "channel listing menu." *Third*, there is no support to restrict what may constitute an "apparent channel" to one "identifying an Information Service." Although the channels shown in Figure 33 and 34 identify Information Services, it is improper to restrict the claims to these particular embodiments.

7. "assignable module" (883 Patent, Claim 25; 034 Patent, Claim 8)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
hardware and/or software capable of being assigned	a processing unit assigned on a one-to-one basis to a home interface controller for providing two-way information services

Yet again, Verizon proposes a definition that narrows the assignment at issue to a permanent assignment on a "one-to-one basis." *See supra* Part III.C.3. Nothing in the claim language or intrinsic record excludes a system in which an "assignable module" may be in assignable communication with *multiple* home interface controllers. Indeed, other claim language confirms this. *See* 034.Claim 8 ("an assignable module for providing an Information Service to *at least one* home interface controller means"). Accordingly, Verizon's proposed definition must be rejected in favor of ActiveVideo's, which further helpfully explains what is meant by "module" (*i.e.*, hardware and/or software). *See* Large Decl., ¶¶ 102-104.

E. The 582 Patent

The 582 Patent is directed to a cable system that can provide information services, like VOD, via assignable communication paths and interactive pages, such as still frame images or HTML pages, from a frame server. One advantage of this system is that it can provide interactive services without necessarily utilizing assignable processors and/or communication

paths, thereby reserving such resources for more data-intensive services like VOD. Relatively

less data-intensive interactive services can be provided in the form of interactive pages supplied

by a frame server that runs multiple processes and can readily serve several subscribers at once.

1.   "frame server" (582.Claims 1, 5)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
Plaintiff believes this term is fully defined by the language of the "frame server" limitation in the claim, and as such, does not require additional construction.	one or more processors that connect to a plurality of users over a common channel and generate television-formatted interactive pages in response to requests from said users

Twelve lines in independent Claims 1 and 5 of the 582 Patent are dedicated to explaining

exactly what the frame server is and what it does. *See* 582.14:17-29, 15:1-12. Therefore,

ActiveVideo does not believe that construction of this term is necessary.

Here again, Verizon's construction is too narrow. *First*, it requires the frame server to

have one or more *processors*. This is not required by the claim language. Rather, in Claims 1

and 5, the frame server runs a plurality of *processes*, not *processors*. While the specification

teaches an embodiment in which the frame server includes processors, *see* 582.Fig. 1, 582.4:21-

22, it is improper to import this feature from a single embodiment into the claims. *Second*,

Verizon's construction requires the use of a "common channel." Such a limitation cannot be

read into the independent claims because (1) it is not required by any claim language of Claims 1

or 5; (2) under the doctrine of claim differentiation, a "common channel" is presumptively not

present in Claims 1 or 5 as this limitation is present in dependent Claims 3, 4, 8, and 9; and (3)

nothing else in the intrinsic record limits the claim scope to a "common channel."

2.   "interactive pages" (582.Claims 1, 5)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
pages that permit user interaction, including still video frame images or a multimedia short script for interpretation by a local process such as a typical page of HTML data as practiced by	still video frame images or a multimedia short script for interpretation by a local process such as a typical page of HTML data as practiced by conventional web browsers

conventional web browsers	

In the patent, "interactive pages" are generated by the frame server and supplied to subscribers' televisions in television signals. The patent states that:

> "Interactive pages" are defined herein to **include** still video frame images or a multimedia short script for interpretation by a local process such as a typical page of HTML data as practiced by conventional web browsers.

582.3:55-63. Thus, "interactive pages" are defined to *include* the agreed language related to "still video frame images or multimedia short script," but are not limited to these examples. Accordingly, ActiveVideo's proposed construction notes that the term covers any page that permits user interaction and not just the two examples of such pages. This is consistent with the descriptions in the specification. *See, e.g.*, *id.* at 3:59-60 ("Thus the interactive page may show cursor movement or flashing or revolving images under local process control.").

Verizon's construction improperly limits the claim to encompass only the examples that the term is "defined to include." In effect, Verizon is rewriting the specification to say "defined to mean" rather than to "include." Verizon's interpretation should be rejected because the specification clearly indicates when it is providing an exclusive definition rather than defining a term to encompass specified examples. *Cf.* 582.3:43 ("'Television communication' *means . . . .*", *with id.* at 3:55-56 ("'Interactive pages' are defined herein *to include . . . .*"

3.   "individually assignable processors" (582.Claims 1, 5)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
processors that are capable of being assigned to a home interface controller	a processing unit assigned on a one-to-one basis to a home interface controller

As discussed above, the claims of the 582 Patent cover a system including, among other things, assignable processors that receive data communications from home interface controllers and provide interactive services to subscribers. These processors are comparable to ones that may be found in or comprise the multimedia controllers ("MMCs"), described in the systems of

the other ActiveVideo patents, which may be assigned *on a demand basis* to provide interactive

television service. *See, e.g.*, Noona Ex 3, 578.7:27-31. Here, the processors of the 582 Patent

similarly offer the advantage of *on-demand* assignability. *See* Noona Ex 5, 582.4:15-19 (in one

embodiment, "a processor [] acts as an interactive controller which is individually assignable to a

requesting subscriber on a demand basis"). As explained in the prosecution history:

> The invention as claimed includes *individually assignable processors* that
> generate information signals for supply over television signals to a subscriber.
> The subscriber has a home interface controller that gets *assigned to a particular
> processor* for receiving interactive programming from the processor.

Noona Ex 14, 582 Patent, Prosecution History, May 30, 2000 Amendment at 4. Thus, an

"individually assignable processor" is the "particular processor" assigned to provide interactive

programming to a home interface controller.

Verizon's proposed construction should be rejected because it rewrites the requirement

that the processor is "individually assignable" as simply "assigned." To the contrary, a processor

is "individually assignable" if it is *capable of* being so assigned, regardless whether it is actually

so assigned.

4. "system manager" (582.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
Plaintiff believes this term is fully defined by the language of the "system manager" limitation of the claim, and as such, does not require additional construction. To the extent the Court deems that a construction of this term/phrase is necessary, Plaintiff provides the following proposed construction: network equipment in data communication with a home interface controller for assigning a frame server and individually assignable processors as defined in the rest of the claim.	a device that provides at least the functions of (1) causing the assignment of a television channel/frequency to the home interface controller for interactive service, and (2) assigning appropriate user service cards and virtual circuits within the switching system in the cable headend

The term "system manager" only appears in Claim 1 of the 582 Patent. ActiveVideo does not believe it needs to be construed because the remainder of the claim language describes exactly what the system manager is and what it does. If the Court decides to construe this term, ActiveVideo's proposed definition faithfully adheres to the defining claim language.

Verizon's proposed definition impermissibly imports extraneous limitations from the specification. *First*, it requires the system manager to cause the assignment of a television "channel/frequency." As discussed already, Verizon's attempt to construe the claimed inventions as being limited to "channel/frequency" assignment is wholly unavailing. *See, e.g.*, *supra* Part III.A.2. *Second*, Verizon's proposed definition requires assigning "user service cards and virtual circuits within the switching system in the cable headend." This blatant importation of limitations from a particular embodiment is a flagrant contravention of settled patent law. Accordingly, Verizon's proposed construction must be rejected.

5.   "switch" (582.Claims 2, 7)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
network equipment for directing television signals	an electrical or mechanical device used for opening, closing, or changing the connection of a circuit

The term "switch" appears in Claims 2 and 7 of the 582 Patent. As with other terms in the 582 Patent, the surrounding claim language sheds light on what is meant by this term. In Claims 2 and 7, a switch is "for directing each television signal from one of said plurality of individually assignable processors to the cable serving the service area in which the respective assigned home interface controller is served." Therefore, as ActiveVideo has proposed, a "switch" should simply be defined as network equipment for directing television signals. Verizon's proposed definition is overly complicated, impermissibly narrow, and ignores that the meaning of "switch" in this context is revealed by other claim language.

6.   **"common channel" (582.Claims 3, 4, 8, 9)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a single transmission path for carrying television signals	a single digital channel dedicated for two-way communication between a frame server and subscribers

The term "common channel" appears in Claims 3, 4, 8, and 9. Again, these claims explain that this term is a channel "transmitted throughout the information service distribution network for carrying the digitally encoded television signals from said frame server." *See, e.g.,* 582 Patent, Claim 3.

Verizon's definition is too narrow. *First*, it requires that the channel be "digital." The claim language says nothing about the channel being "digital," and to import this feature from an embodiment would be improper. *Second*, it requires that the channel be "dedicated." Again, there is no support for adding in such a restriction. *Third*, it requires "two-way communication" over the common channel. Such a requirement is inconsistent with the claim language, which only requires that the common channel carry television signals *from* the frame server. The specification, moreover, confirms that the common channel is for *downstream* transmission to subscribers. *See, e.g.,* Noona Ex 5, 582.7:31-36. Accordingly, there is no support for Verizon's overly restrictive construction.

F.   **Means-plus-function**

In construing alleged means-plus-function terms, the Court must first determine whether 35 U.S.C. § 112(6) applies. The statutory rules for construing a term under this section will only apply to "purely functional limitations that do not provide the structure that performs the recited function." *Depuy Spine, Inc. v. Medtronic Sofamor Sanek, Inc.*, 469 F.3d 1005, 1023 (Fed. Cir.

2006).[13] If the Court concludes that § 112(6) applies, it must first determine the function that is

performed and, then, identify the structure in the specification corresponding to the claimed

function. *See JVW Enters., Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1330 (Fed.Cir.2005).

1.   "node means" (883.Claim 39)

In Claim 39 of the 883 Patent, the "node means" receives control data from a home

interface controller and provides Information Signals. Despite using the word "means," this term

is not governed by § 112(6) because the claim fully describes the structure that receives the

control data and provides the Information Signals. The Parties, in fact, do not dispute that a

"node" is a structural element—*i.e.*, *equipment* in the cable network that communicates with a

home interface controller. Moreover, Claim 39 describes not only the structure that supports the

receiving/providing functions, but also its location ("disposed at a headend") and connectivity in

the network ("available to the data communication path"). An element with such a detailed

recitation of its structure – as opposed to its function – is not subject to § 112(6). *See, e.g.*, *Cole*

v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed. Cir. 1996) (concluding the term "perforation

means" does not invoke § 112(6)). The addition of the word "means" here does not obliterate

the structural character of this element.[14]

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[13] The use of the term "means" in a claim limitation often implies that the inventor used the
means-plus-function claim format, which invokes the associated statutory limits on the literal
scope of that claim limitation. *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1584
(Fed. Cir. 1996). This implication, however, does not apply where the claim language itself
provides the **structure** that performs the recited function. *See Phillips v. AWH Corp.*, 415 F.3d
1303 (Fed. Cir. 2005) (*en banc*) (finding that a claim limitation stating "means disposed inside
the shell for increasing its load bearing capacity comprising internal steel baffles" provides the
relevant structure, *i.e.*, "internal steel baffles," and thus is not limited to the embodiments in the
specification and equivalents thereof).

[14] To the extent the Court determines that this term is governed by § 112(6), ActiveVideo has
identified the corresponding structure, which performs the functions of a node. In its revised
construction of this term, Verizon identified the same structure. The function identified by
Verizon in its revised position, however, is not entirely attributable to the node.

2.   **"input selection means" (034.Claim 1)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
This term is governed by 35 U.S.C. § 112 ¶ 6. The function is "selecting a given one of the television information signals at the signal input." The corresponding structure includes, for example, depending on the type of television information signals received, in figure 27 of '578 and '034, control data receiver 2751, data communications processor 275, data bus 279, and/or tuner 272; in figure 28 of '578 and '034, control data receiver 2751, high-speed data receiver 281, data communications processor 275, and/or tuner 272; in figure 29 of '578 and '034, control data receiver 2751, data communications processor 275, and/or tuner 272; as described in the related text, or equivalents thereof.	This claim term is governed by 35 U.S.C. § 112, ¶ 6. There is no structure disclosed in the specifications of the corresponding patents.

The "input selection means," which is a part of the home interface controller, is for

"selecting a given one of the television information signals at the signal input." This function

may be performed by the tuner (and other related components) in the home interface controller.

In its proposed definition, ActiveVideo identifies this and other structures that may perform the

claimed function. *See also* Large Decl., ¶ 130-133. Because such structure is easily identifiable,

Verizon's contention that there is no corresponding structure must be rejected.

3.   **"means for obtaining information services from a regional processing center" (883.Claim 32; 034.Claim 6)**

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
This term is governed by 35 U.S.C. § 112 ¶ 6. The function is "obtaining Information Services from a regional processing center." The corresponding structure includes, for example, MMC and/or service manager, as shown in figure 7 of '883 and '034, as described in the related text, or equivalents thereof.	This claim term is governed by 35 U.S.C. § 112, ¶ 6. There is no structure disclosed in the specifications of the corresponding patents.

In the context of Claim 32 of the 883 Patent and Claim 6 of the 034 Patent, this "means"

element is included as part of the information source. There is no dispute regarding this

element's function—*i.e.*, it obtains Information Services from a regional processing center.

Verizon's contention that there is no corresponding structure is puzzling given that headend 11 (of Fig. 1) and super headend (of Fig. 2) are expressly described as being able to obtain Information Services from a regional processing center. *See, e.g.*, Noona Ex 4, 883.5:45-6:10. Moreover, Figure 6 shows that Information Services may be obtained from a regional center over line 61b using, for example, T1 or T3 bands or ATM digital protocols and gateways 62b; the super headend may then furnish these Information Services via switch 65 to the headend 11. *See id.* at 7:38-42. Accordingly, the corresponding structure includes at least these elements of the cable system and should be adopted by the Court in any construction of this element.

IV.   DISPUTED TERMS FOR VERIZON'S PATENTS

A.   The 748 Patent

The 748 Patent is directed to a method for providing a user with the ability to navigate the Web on a TV using a standard TV remote control. *See* Noona Ex 6, 748.8:28-41 and 7:19-25. In order for a user to navigate the Web on their TV using their remote control, the visual indicia that are typically used in Web pages to identify hyperlinks (*i.e.*, underlined text that can be selected) are augmented by visual indicia that can be selected using a TV remote control. For example, the patent says that the:

> Web page is first scanned to determine the hyperlinks in the page (step 710). For example, in the WWW environment, which typically utilizes HyperText Markup Language (HTML), the Web page is scanned for tags indicating references to hyperlinks.
>
> When the first hyperlink is detected a '1' might be inserted into the HTML document near the first hyperlink. When the second hyperlink is detected a '2' is inserted into the HTML document. Therefore, the original contents of the HTML document are augmented with additional visual indicia corresponding to each hyperlink.

Noona Ex 6, 748.2:52-54 and 6:12-24. These "additional visual indicia" allow the user to navigate the hyperlinks by selecting "1" or "2" on their remote control.

1.   "data processing network information" (748.Claim 13)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a page (*e.g.*, a Web page) for display on a network computer	information from a network that must be transformed for display on a television

Although not expressly defined, the term "data processing network information" is used

in the 748 Patent to refer to a Web page:

> [T]he user Web page selection is translated into an Internet address (step 626).
> Server 110 ***retrieves the Web page*** associated with the translated Internet address
> (step 630). The Web page is then processed to transform the ***Web-based format***
> into signals suitable for display on television 114 (step 634). The processed Web
> page is then transmitted to television 114 via set top box 112 and displayed to the
> user (step 638).

Noona Ex 6, 748.6:58-65. Furthermore, the 748 Patent depicts the claimed "data processing

network information" as a Web page selected by a user via the network, *i.e.*, the Company XYZ

Web page illustrated in Fig. 5 and shown in step 630 of Fig. 6. *See also* Noona Ex 6, 748.6:66-

7:1 ("computer-generated web pages"). Thus, ActiveVideo's construction is fully supported by

the patent.

Verizon's construction ignores the disclosure in the patent and requires that the

information be "transformed for display on a television," conflating this limitation with the

subsequently claimed "transformation" step. For these reasons, Verizon's proposed construction

must be rejected.

2. "network format" (748.Claim 13)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
format for display on a network computer	format for communications within the network

ActiveVideo's construction of a "network format" is consistent with the parties' agreed

upon construction for "television format" as a "format ***for display*** on a television." In defining a

"television format," Verizon acknowledges that a "format" refers to a ***display format***. But in

defining a "network format," Verizon argues that the "format" is a "***communications format***."

Nothing in the intrinsic record justifies Verizon's conflicting construction. In fact,

"communication" is used in the 748 Patent when referring to a "communication line" or

"communication data path," and not when referring to a "format." Noona Ex 6, 748.5:61-65

("Web page is then processed to transform the *Web-based format* into signals suitable for

display on television 114 (step 634)"); *see* also Noona Ex 6, 748.1:24-40. As such, the term

"network format" is a format for display on a network computer, and not Verizon's

communication format.

3.   "first interactive element" and "second interactive element" (748.Claim 13)

ActiveVideo's Proposed Constructions	Verizon's Proposed Constructions
a first user-selectable symbol or other visual indicia	an element for user selection
a second user-selectable symbol or other visual indicia that is different from the first user-selectable symbol or other visual indicia	an element, different from the first element, for user selection

ActiveVideo's constructions for these two disputed phrases are fully supported by the

748 Patent which discloses transforming "data processing network information in a network

format having a first interactive element" to a "television format having a second interactive

element." The 748 Patent describes the visual indicia associated with the hyperlink on the Web

page as a "first interactive element." *See* Noona Ex 6, 748.1:40-44. The the 748 Patent

describes augmenting this "first interactive element" with another indicia (*e.g.,* numerals "1" and

"2") associated with the hyperlink on the page transformed for TV as the "second interactive

element." Noona Ex 6, 748.Fig. 8 and 748.6:58-65. The 748 Patent explains that "instead of

using numbers and letters for *user-selectable options*, iconic symbols or other *selectable visual*

indicia may be used." Noona Ex 6, 748.7:15-18. As such, ActiveVideo's constructions are true

to the intrinsic record, while Verizon's constructions fail to provide any insight as to what

constitutes an "element."

B.   The 542 Patent

The 542 Patent is directed to a method of delivering interactive advertising through an interactive video distribution system. Noona Ex 8, 542.1:7-9 and 2:51-59. Verizon has asserted Claims 1, 2, 6 and 25 of the 542 Patent in this action.

1.   "video still image" (542.Claims 1, 25)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
static image for display on a television that is not part of a full-motion video	an image, at least a portion of which is not in motion

The 542 Patent describes two distinct types of video advertising — full-motion video and video still image. Noona Ex 8, 542.1:28-35 ("[i]n the television industry, an advertisement is a full-motion or still image video segment which is inserted into the video programming."); *see also* 3:55-62. The 542 Patent states:

> Second audio output 68 and *video output* 70 together provide *full-motion program* 36 along with first and second advertisements 40 and 42,…Processor 74 *additionally* has a data output that provides a *video still image* to a digital media server element of video server 60. Video server 60 multiplexes these *two inputs* with other optional video inputs

Noona Ex 8, 542.7:5-15. The principles of patent claim construction require that unless the patent uses terms interchangeably, different terms in a patent claim have different meanings. *See CAE Screenplates Inc. v. Heinrich GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000); *Tehrani v. Hamilton Med., Inc.*, 331 F.3d 1355, 1361 (Fed. Cir. 2003). Here, independent Claim 25 of the 542 Patent uses the terms "full-motion video (FMV)" and "video still image" as distinct terms and, as such, these terms should be interpreted to have different meanings.

Verizon's construction that a "video still image" is "an image, at least a portion of which is not in motion" is a desperate attempt to cover ActiveVideo's products and makes little sense. According to Verizon's proposed construction, any video image, such as the background of a movie scene which is not "in motion," would not only be a full-motion video, but also a "video still image." This unworkable construction should be rejected as conflicting with the plain and

ordinary meaning of a "still image" as used in the patent.

2. "supplementary advertising information associated with said advertisement" (542.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
additional advertising information related to the earlier claimed advertisement	Plain and ordinary meaning

The 542 Patent states that "[a]n interactive advertisement is an advertisement in which *additional*, or supplemental, *advertising information*, may be obtained from interaction through subscriber unit 22. . ." Noona Ex 8, 542.4:19-22; *see also* 10:51-56 ("[s]ubprocess 130 is performed to acquire additional, or supplementary, information *related to an advertisement*.") Thus, the 542 Patent demonstrates that "supplementary advertising information associated with said advertisement" is "additional advertising information related to the earlier claimed advertisement."

Verizon has both refused to accept ActiveVideo's construction and refused to provide a competing construction. The Court should adopt ActiveVideo's construction which is fully supported by the intrinsic record.
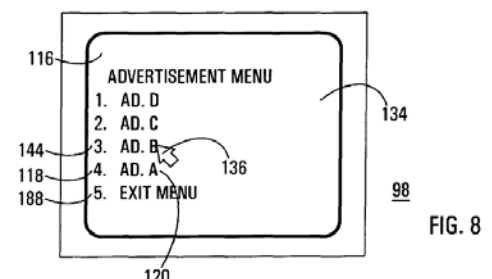
3. "menu" (542.Claims 1, 25)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
an interface for users to view and select from a list of advertisements	an interface for users to view and select from displayed options

ActiveVideo's construction is derived from the language of the claims themselves. Claim 1 requires "receiving…a request to register said *advertisement in a menu*" and "generating an entry for said *advertisement in said menu*."

Noona Ex 8, 542.Claim 1. As such, the claims require that the "menu" comprises a list of advertisements registered by the subscriber. Moreover, with regard to Fig. 8 (illustrated to the

FIG. 8

right), the 542 Patent states:

> First menu 116 shows advertisement identifiers for a number of *advertisements that were registered in menu* database 79 (FIG. 6) for the subscriber . . . First menu 116, as presented as *video still image* 134, is an interactive *menu*.

Noona Ex 8, 542.11:8-14. The 542 Patent further states:

> When the subscriber desires to learn more about an *advertisement listed* in *video still image* 134, the subscriber selects one of the entries by moving pointer 136. . . to that entry and selecting it by pressing a key on subscriber interface 96.

Noona Ex 8, 542.11:23-27. Thus, the claimed "menu" is an interface for users to view and select

from a list of advertisements. Verizon's proposed construction, however, requires "an interface

for users to view and select from displayed *options*." Claim 1 requires the menu to list

advertisements, not "options." As such, Verizon's proposed construction must be rejected.

4.   "advertisement identifier" (542.Claim 2)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
code or other string of characters for identifying a given advertisement	data associated with a given advertisement

The 542 Patent requires that "data *codes* convey program-specific data…[that] includes

identifiers for identifying interactive *advertisements* [during an advertisement break]." *See*

Noona Ex 8, 542.5:18-30. The 542 Patent describes various codes or other strings of characters

used as an advertisement identifier:

> In the exemplary embodiment, "AD01B" program-specific data 50 is an **advertisement identifier** assigned to first advertisement 40. Likewise, "AD02B" program-specific data 50 is an **advertisement identifier** assigned to second advertisement 42. "AD# ... N" program-specific data indicates an **advertisement identifier** for identifying any conventional (i.e. non-interactive) advertisements (not shown) that may be aired during advertisement break 43.

Noona Ex 8, 542.5:31-44; *see also* Noona Ex 8, 542.9:55-59 and 4:66-5:3; Fig. 3.

Verizon's proposed construction is overly broad − covering any "data associated with" a

given advertisement regardless whether the data can be used to identify an advertisement.

Nothing in the intrinsic record suggests that an "advertisement identifier" can be any "data

associated with a given advertisement" as Verizon contends. Accordingly, this Court should

reject Verizon's unsupported construction.

C.   The 325 Patent

The 325 Patent is directed to providing selective end-to-end broadband communications

between subscribers' terminals and a plurality of information service providers through a

network that is controlled by a "Level 1 Gateway." Verizon has asserted Claims 1, 17 and 28 of

the 325 Patent in this action.

1.   "broadband" (325.Claims 1, 17, 25)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
a data transmission channel that can handle frequencies higher than the normal voice-grade line limit of 3 to 4 kilohertz; can carry many voice or data channels simultaneously or can be used for high-speed single channel data transmission	Plain and ordinary meaning

While the term "broadband" is not defined in the 325 Patent, the patent says that

"broadband" network is capable of "providing interactive services, such as video on demand,

home shopping or purchasing, home banking, medical information, ticket ordering, gaming, etc."

Noona Ex 7, 325.5:48-51. At the time of filing of the 325 Patent, the industry commonly

referred to a "broadband channel" as "A data transmission channel that can handle frequencies

higher than the normal voice-grade line limit of 3 to 4 kilohertz; can carry many voice or data

channels simultaneously or can be used for high-speed single-channel data transmission."

Noona Ex 17, McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994). This

definition is consistent with the use of the term in the patent and to those of skill in the art at the

time of the invention. *See* the Declaration of Stuart J. Lipoff in Support of ActiveVideo's

Opening Claim Construction Brief ("Lipoff Dec."), ¶¶ 22 and 23.

2.   "menu" (325.Claims 1, 28)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
an interface for users to view and select from a list of broadband information service providers	an interface for users to view and select from displayed options

As was the case with the term "menu" in the 542 Patent, the parties agree that a "menu"

is an interface for users to view and select, but disagree as to what is viewed and selected.

ActiveVideo's construction is derived from the language of claim 1 that requires a "menu" that

lists "a plurality of broadband information service providers available through the broadband

communication network."[15] Noona Ex 7, 325.Claim 1. Moreover, the specification of the 325

Patent further supports ActiveVideo's construction:

> FIG. 2D shows the format of the menu display. As shown, the ***menu*** displays the ***number of available providers*** (VIP's), lists each provider by two-digit code, and gives the name of each provider.

Noona Ex 7, 325.11:16-20. Accordingly, ActiveVideo's construction of "menu" is true to the

intrinsic record of the 325 Patent, while Verizon's proposed definition again requires an interface

of displayed "options" that finds no support anywhere in the intrinsic record.

3.   "Level 1 Gateway" (325.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
telephone company equipment for managing a video dial-tone network	a first gateway in a broadband communication network

A Level 1 Gateway is a term of art used in the telephone network industry to mean

telephone company equipment for managing a video dial-tone network. Lipoff Dec., ¶¶ 26-33.

The claimed "Level 1 Gateway" "controls the broadband routing functionality of the network to

establish a…two-way communication signaling link between the provider and the user." Noona

Ex 7, 325.3:40-43. In other words, the "Level 1 Gateway" ***manages*** the end-to-end connection

between an information service provider and a subscriber in a video dial-tone network. *See*

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[15] ActiveVideo's construction is also supported by Claim 28 of the 325 Patent which requires "transmitting a menu of available service providers to one of the terminals for display."

Noona Ex 7, 325.Fig. 5; *see also* Lipoff Dec., ¶¶ 34-37. Noona Ex 7, 325.6:66-7:3; Fig. 5.

In addition, during the prosecution of the 325 Patent, the Applicant stated that the "Level One

Gateway (…'L1GW') included functions such as communications port *management...*" 325

Patent Prosecution History, Declaration of William D. Goodman, pgs. 3-4 ("Goodman

Declaration"). Noona Ex 9,. *See* Lipoff Dec., ¶ 24.

Bell Atlantic's own prior art Full Service Network is disclosed in the 325 Patent as an

"advanced *video dial tone network* utilizing a Level 1 Gateway" and is also the subject of Bell

Atlantic's Request for Quotation No. 93JJM0242 for Bell Atlantic's Full Service Network

("Quotation") submitted during prosecution of the 325 Patent. Noona Ex 1,5. The Quotation

states:

> The L1GW is the network *manager* of the *Video Services* network…LlGW
> *manages* the connections between the VIU and the VIP…

Quotation, pg. 9; *see also*, Lipoff Dec., ¶ 37. It is overwhelming clear from the above that a

Level 1 Gateway is telephone company equipment for managing a video dial-tone network.

Conversely, Verizon's construction merely repeats the disputed term "gateway" without

providing any guidance on the meaning of the term. To the contrary, as shown above, the patent

claims a particular type of gateway used by the telephone industry. *See* Lipoff Dec., ¶¶ 26-37.

4. "Level 2 Gateway" (325.Claim 1)

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
service provider equipment for managing access to the service provider's media	a second gateway in a broadband communication network

Here again, a Level 2 Gateway is also a term of art used in the telephone industry to

mean service provider equipment for managing access to the service provider's media. *See*

Lipoff Dec., ¶¶ 26-33. The 325 Patent states that "each VIP provides a level 2 gateway and

some form of broadband information server 252 connected to the network." Noona Ex 7,

325.10:37-39. The claimed "Level 2 Gateway" is for "controlling operation of the [broadband]

server [operated by the selected service provider]." Noona Ex 7, 325.Claim 1. Lipoff Dec., ¶ 25.

The 325 Patent states that the services of a "Level 2 Gateway" include "transmission of menus of

available information to subscribers, searches of available information, targeted advertisement

insertion, previews, trailers, etc." Noona Ex 7, 325.7:39-55. Lipoff Dec., ¶ 38. Furthermore,

during the prosecution of the 325 Patent, the Applicant provided statements supporting

ActiveVideo's construction:

> L2 Gateways will provide access to various types of information via one or more
> VIP servers. Such information could include, for example, archived or live video
> and menus.

Goodman Declaration, Attachment 1 ("Attachment 1"), pg. 10. Noona Ex 1,0.

Here again, Verizon merely repeats the disputed term "gateway" without providing any

guidance on the meaning of the term. As shown above, Level 2 Gateway is a particular type of

gateway used to manage access to a service provider's media. Lipoff Dec., ¶¶ 26-35, 38.

5.   **"controlling the broadband communication network to establish a broadband communication though [*sic*] the network between a broadband server operated by the selected service provider and the subscriber's terminal" (325.Claim 1)**[16]

ActiveVideo's Proposed Construction	Verizon's Proposed Construction
controlling the broadband communication network to establish end to end communication connectivity needed for the requested broadband communication session between a service provider's server and a subscriber's terminal	Plain and ordinary meaning

The "Level 1 Gateway" of the 325 Patent provides "***primary control*** of all routing and

_____

[16] Similar claim language exists in asserted Claims 17 and 28. *See* Claim 17 ("controlling
establishment of subsequent broadband communications links through the network to or from the
subscriber's terminal"); Claim 28 ("controlling the network to establish a broadband
communication link through the network between one of the information service provider
systems associated with the selected service provider and the one terminal").

access functions of the network….” Noona Ex 7, 325.21:60-64. In doing so, the “Level 1

Gateway” establishes a “broadband communication session or connection through the network

between an interactive information service provider 1400 and a particular DET [set-top box]

1217….” Noona Ex 7, 325.23:27-31. In order to establish a session, the Level 1 Gateway

utilizes a series of application modules, including a “session management module.” The 325

Patent states:

> A session management module is responsive to the requests for broadband
> communication sessions, for identifying ***end to end communication connectivity
> needed for each requested broadband communication session***. The session
> management module generates requests for the identified end to end
> communication connectivity…

Noona Ex 7, 325.4:45-65. Furthermore, the Goodman Declaration states that “a broadband

communication network, shown in Figure 3.1 on page 9, included a Level One Gateway that

controlled interactions between broadband VIPs [video information provider] and VIUs [video

information user].” Goodman Declaration, pg. 2; Attachment 1, pg. 9, Fig. 3.1. Furthermore, in

Bell Atlantic’s “Video Dial Tone Platform Architecture Description Document,” Level 1

Gateway functionality includes:

> Network Management - The LIGW will maintain sufficient records of customer
> connections, the VDT network, and VIP connections so as to ***direct all necessary
> switch controllers***, within a LATA, in the ***management of network connections
> between the customer, the LIGW, or selected L2GW/Server***.

Declaration, Attachment 2, pg. 3. Noona Ex 1,1. In other words, all network connections are

managed and controlled between the set-top box and the information service provider. Lipoff

Dec., ¶¶ 34-38. Since Verizon has provided no substantive construction, the Court should adopt

ActiveVideo’s construction which is supported by the intrinsic and extrinsic record.

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CERTIFICATE OF SERVICE

I herby certify that on December 3, 2010, I will electronically file the foregoing with the

Clerk of the Court using the CM/ECF system, which will send a notification of such filing (NEF)

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